General

Title

Diagnosis and treatment of ischemic stroke: percentage of ischemic stroke patients who are assessed with a swallow screening test before receiving food, fluids or medications by mouth.

Source(s)

Anderson D, Larson D, Bluhm J, Charipar R, Fiscus L, Hanson M, Larson J, Rabinstein A, Wallace G, Zinkel A. Diagnosis and initial treatment of ischemic stroke. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2012 Jul. 122 p. [238 references]

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of ischemic stroke patients age 18 years and older initially presenting with acute symptoms of ischemic stroke who are assessed with a swallow screening test before receiving food, fluids or medications by mouth.

Rationale

The priority aim addressed by this measure is to increase the percentage of stroke patients age 18 years and over who receive appropriate medical management within the initial 24 to 48 hours of diagnosis for prevention of complications such as:

- Dehydration
- Aspiration
- Hypoglycemia and hyperglycemia

Deep vein thrombosis
Immobility
Falling
Nutritional status decline
Hyperthermia

Stroke is the fourth leading cause of death, recently dropping from third after decades long efforts to reduce incidence by treatment of risk factors. It remains the leading cause of disability among adults. Costs of hospitalizations, other cares and lost wages are simply enormous.

Pneumonia is a common finding among patients with acute stroke, its incidence ranging from 6% to 32%, and it is associated with stroke-related dysphagia symptoms. Implementation of a coordinated swallow evaluation on all acute stroke patients has been shown to significantly decrease the incidence of pneumonia among patients with acute stroke. Adherence with use of a dysphagia screening tool for patients with acute stroke has been shown to be variable with up to 25% of patients not screened. When implemented, failing a dysphagia screen has been found to be a predictor of post-stroke pneumonia. Lack of standardized, high-quality tools has hampered implementation, and a review found only four of 35 protocols met basic quality criteria. Those four protocols included the Barnes Jewish Hospital Stroke Dysphagia Screen, the modified Mann Assessment of Swallowing Ability, the Emergency Physician Swallowing Screen and Toronto Bedside Swallowing Screen Test. Lack of consensus around the best tools to use has also led the Joint Commission to retire the dysphagia screen measure as a performance indicator for certification as a Primary Stroke Center.

Evidence for Rationale

Anderson D, Larson D, Bluhm J, Charipar R, Fiscus L, Hanson M, Larson J, Rabinstein A, Wallace G, Zinkel A. Diagnosis and initial treatment of ischemic stroke. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2012 Jul. 122 p. [238 references]

Lakshminarayan K, Tsai AW, Tong X, Vazquez G, Peacock JM, George MG, Luepker RV, Anderson DC. Utility of dysphagia screening results in predicting poststroke pneumonia. Stroke. 2010 Dec;41(12):2849-54. PubMed

Odderson IR, Keaton JC, McKenna BS. Swallow management in patients on an acute stroke pathway: quality is cost effective. Arch Phys Med Rehabil. 1995 Dec;76(12):1130-3. PubMed

Perry L, Love CP. Screening for dysphagia and aspiration in acute stroke: a systematic review. Dysphagia. 2001 Winter;16(1):7-18. [48 references] PubMed

Schepp SK, Tirschwell DL, Miller RM, Longstreth WT Jr. Swallowing screens after acute stroke: a systematic review. Stroke. 2012 Mar;43(3):869-71. PubMed

Primary Health Components

Ischemic stroke; dysphagia; swallow screening

Denominator Description

Number of all patients presenting with symptoms of acute ischemic stroke (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of patients who were screened for dysphagia before taking any food, fluids or medication (including aspirin) by mouth

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Emergency Department

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

The time frame pertaining to data collection is monthly.

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Number of all patients presenting with symptoms of acute ischemic stroke

Population Definition: Patients age 18 years and older.

Exclusions
Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Number of patients who were screened for dysphagia before taking any food, fluids or medication (including aspirin) by mouth

Exclusions
Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Percentage of ischemic stroke patients who are assessed with a swallow screening test before receiving food, fluids or medications by mouth.

Measure Collection Name

Diagnosis and Treatment of Ischemic Stroke

Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

Funding Source(s)

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and five sponsoring health plans in Minnesota and Wisconsin.

Composition of the Group that Developed the Measure

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Financial Disclosures/Other Potential Conflicts of Interest

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Research Grants: None
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Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

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Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

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Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

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Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

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Guideline-Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: Clinical Advisory Panel Leader, TogetherMD, LLC

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2012 Jul

Measure Maintenance

Scientific documents are revised every 12 to 24 months as indicated by changes in clinical practice and literature.

Date of Next Anticipated Revision

The next scheduled revision will occur within 24 months.

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in January 2016.

Measure Availability

Source available from the Institute for Clinical Systems Improvement (ICSI) Web site .

For more information, contact ICSI at 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; Phone: 952-814-7060; Fax: 952-858-9675; Web site: www.icsi.org ; E-mail:

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NQMC Status

This NQMC summary was completed by ECRI Institute on November 14, 2012.

The information was reaffirmed by the measure developer on January 13, 2016.

Copyright Statement

Production

Source(s)

Anderson D, Larson D, Bluhm J, Charipar R, Fiscus L, Hanson M, Larson J, Rabinstein A, Wallace G, Zinkel A. Diagnosis and initial treatment of ischemic stroke. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2012 Jul. 122 p. [238 references]

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Readers with questions regarding measure content are directed to contact the measure developer.